

# ABSTRACT OF THE DISCLOSURE

To make it possible to observe the bottom of a contact hole and internal wires, in observation of the contact hole 102, by scanning it at a predetermined acceleration voltage, the positive charge 106 is formed on the surface of the insulator 101, and the secondary electrons 104 are attracted in the hole by this electric field, and the hole is continuously scanned at an acceleration voltage different from the acceleration voltage, and the sample is observed. When the wires embedded in the insulator are to be observed, by observing the insulator at a predetermined acceleration voltage, an electron beam is allowed to enter the sample, and the sample is continuously scanned at an acceleration voltage different from the acceleration voltage, and hence the existence of wires is reflected as a change in the charge of the surface, and it is observed. In either case, the acceleration voltage before observation is different from the one during observation, and the sample surface is temporarily radiated at an acceleration voltage positively generating a positive or negative charge, and thereafter, the acceleration voltage is returned to a one suited to observation, and the sample is observed.